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WHAT IS CLAIMED IS:

- 1. A pegylated and hydroxlated trimetallic nitride endohedral metallofullerene comprising a plurality of hydroxyl groups and one or more polyethylene glycol moieties covalently bonded to a fullerene encapsulating a trimetallic nitride.
- 2. The pegylated and hydroxlated trimetallic nitride endohedral metallofullerene of claim 1 wherein the polyethylene glycol is covalently bonded to the fullerene through a malonyl moiety.
- 3. The pegylated and hydroxlated trimetallic nitride endohedral metallofullerene of claim 1 wherein the one or more polyethylene glycol moiety is covalently bonded to the fullerene through an ethyl malonyl moiety.
- 4. The pegylated and hydroxlated trimetallic nitride endohedral metallofullerene of claim 1 wherein one or more pairs of polyethylene glycol moieties are covalently bonded to the fullerene through a malonyl moiety.
- 5. The pegylated and hydroxlated trimetallic nitride endohedral metallofullerene of claim 1 wherein the polyethylene glycol moiety has a molecular weight chosen from about 350, 550, 750, 2000 and 5000.
- 6. The pegylated and hydroxlated trimetallic nitride endohedral metallofullerene of claim 1, wherein the polyethelene glycol moiety is methoxypolyethylene glycol.
- 7. An endohedral metallofullerene of the formula: $A_{3-n}X_nN@C_m(-R(-[-O-CH_2CH_2-]_k-Q)_j)_i(-OH)_h; \text{ where A and X are metal atoms, } n=0-3; \text{ m is an even number between about 60 and about 200; } 1 < h < m-2; i \ge 1; j=1 \text{ or 2; } and k > 1.$

- 8. The endohedral metallofullerene of claim 7 wherein j=1 and R is an ethyl malonyl group.
- 9. The endohedral metallofullerene of claim 7 wherein Q is a methoxy group.
- 10. The endohedral metallofullerene of claim 7 wherein j=2 and R is a malonyl group.
 - 11. The endohedral metallofullerene of claim 7, wherein k is about 7.
 - 12. The endohedral metallofullerene of claim 7, wherein k is about 11
- 13. The endohedral metallofullerene of claim 7, wherein k is about 16 or greater.
- 14. The endohedral metallofullerene of claim 7, wherein k is about 40 or greater.
- 15. The endohedral metallofullerene of claim 7, wherein, A and/or X are rare earth element and/or a group IIIB element.
- 16. The endohedral metallofullerene of claim 7, wherein A and/or X are chosen from among the group consisting of Scandium, Yttrium, Lanthanum, Gadolinium, Holmium, Erbium, Thulium, and Ytterbium.
- 17. A method of pegylation and hydroxylation of trimetallic nitride endohedral metallofullerene comprising,

reacting a malonyl-polyethylene glycol with a trimetallic nitride endohedral metallofullerene to form a pegylated trimetallic nitride endohedral metallofullerene;

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reacting the pegylated trimetallic nitride endohedral metallofullerene with NaOH and TBAH in an organic solvent; and,

adding H_2O and H_2O_2 to hydroxlate the pegylated trimetallic nitride endohedral metallofullerene.

- 18. The method of claim 17, wherein the malonyl-polyethylene glycol is ethyl malonyl methoxypolyethylene glycol.
- 19. The method of claim 17, wherein the malonyl-polyethylene glycol is malonyl dimethoxypolyethylene glycol.
- 20. A pegylated and hydroxylated trimetallic nitride endohedral metallofullerene made by the method of claim 17.